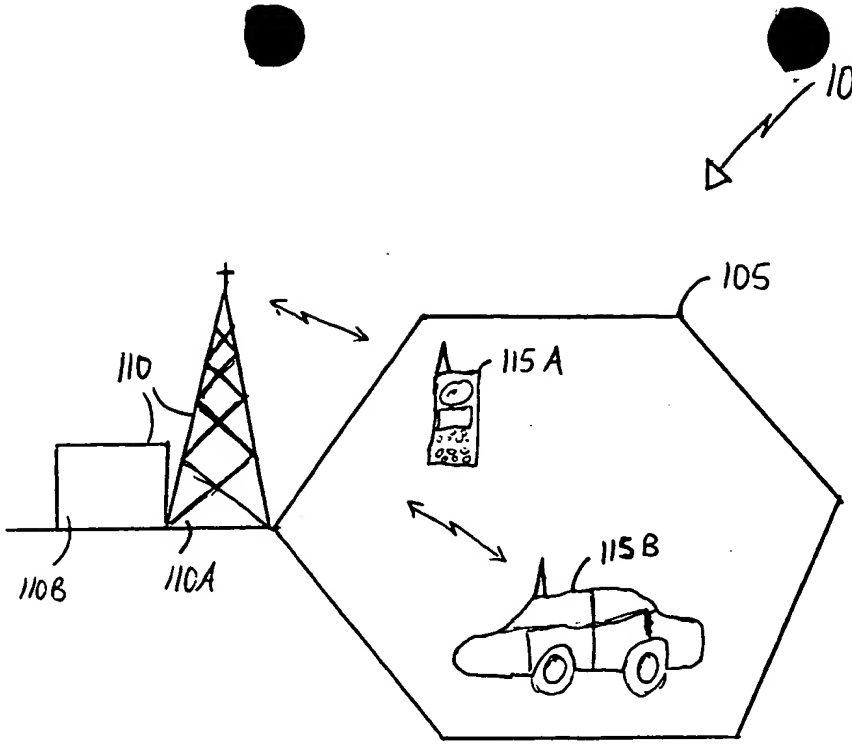
100
105
110
115 A
115 B
110B
110A

FIG. 1

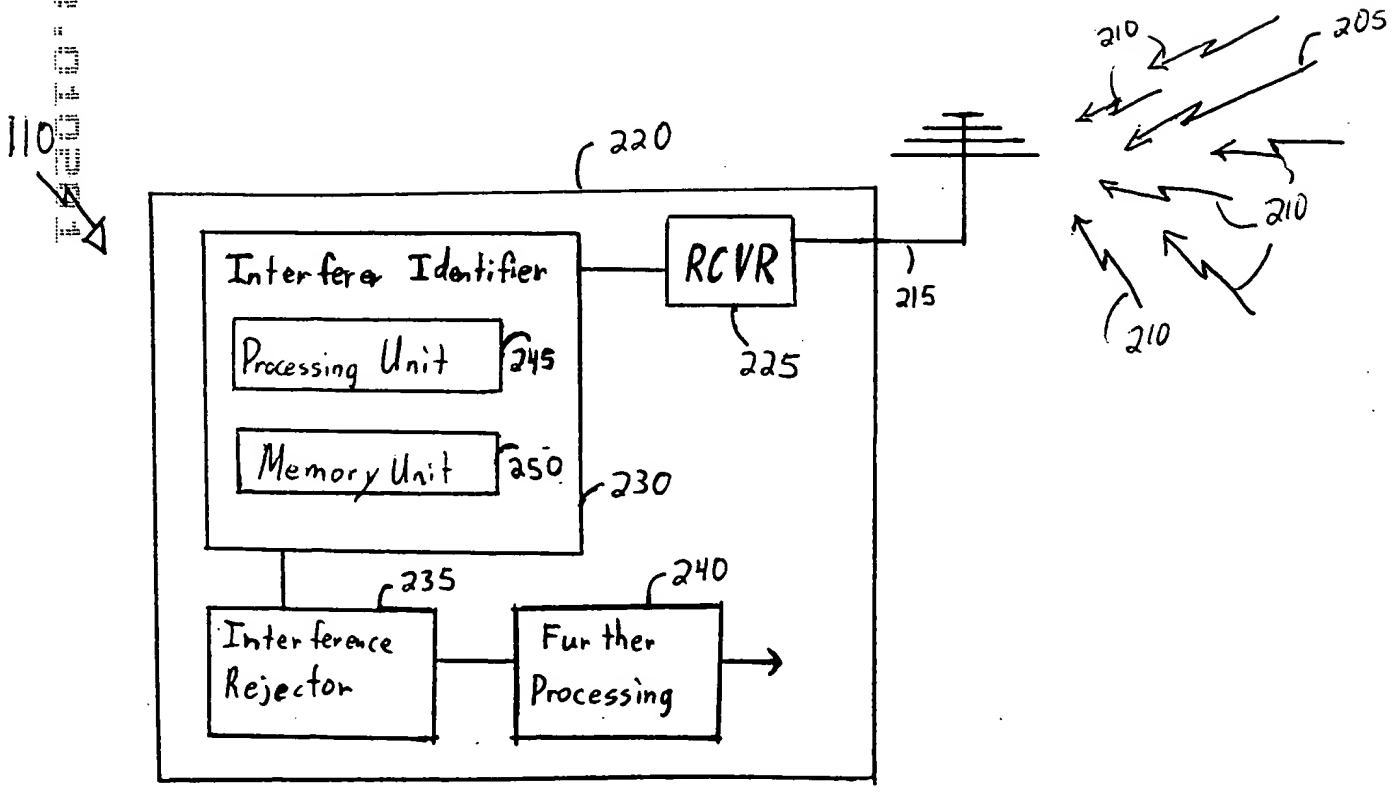
110
220
Interfere Identifier
RCVR
Processing Unit
245
Memory Unit
250
230
225
215
235
240
Interference Rejector
Further Processing
210
205

FIG. 2

300

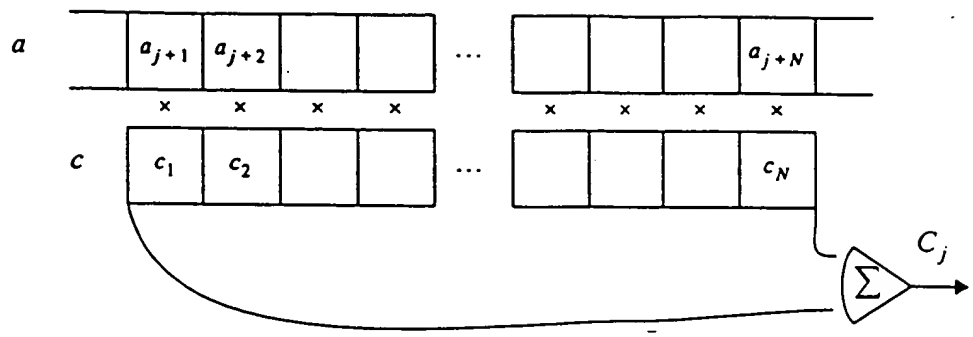

FIG. 3A

Training Sequences 320

index i	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Seq. #																										
1	1	1	1	-1	1	1	1	1	-1	-1	-1	1	-1	-1	1	-1	1	1	1	-1	1	1	1	1	-1	-1
2	1	-1	1	-1	-1	1	1	1	1	1	-1	1	1	-1	-1	-1	1	-1	1	-1	-1	1	1	1	1	1
3	-1	1	-1	-1	1	1	1	-1	1	-1	1	1	-1	-1	-1	-1	-1	1	-1	-1	1	1	1	-1	1	-1
4	-1	-1	-1	1	1	-1	1	-1	1	1	1	-1	-1	1	-1	-1	-1	-1	-1	1	1	-1	1	-1	1	1
5	-1	1	-1	-1	-1	1	1	1	1	-1	1	1	-1	1	-1	-1	-1	1	-1	-1	-1	1	1	1	1	-1
6	-1	1	-1	-1	-1	-1	1	1	1	-1	1	1	1	-1	1	-1	-1	1	-1	-1	-1	-1	1	1	1	-1
7	-1	-1	1	-1	1	1	-1	1	1	1	-1	1	1	1	1	-1	-1	-1	1	-1	1	1	-1	1	1	1
8	-1	-1	1	-1	-1	1	-1	1	1	1	-1	-1	-1	-1	1	-1	-1	-1	1	-1	-1	1	-1	1	1	1

FIG. 3B

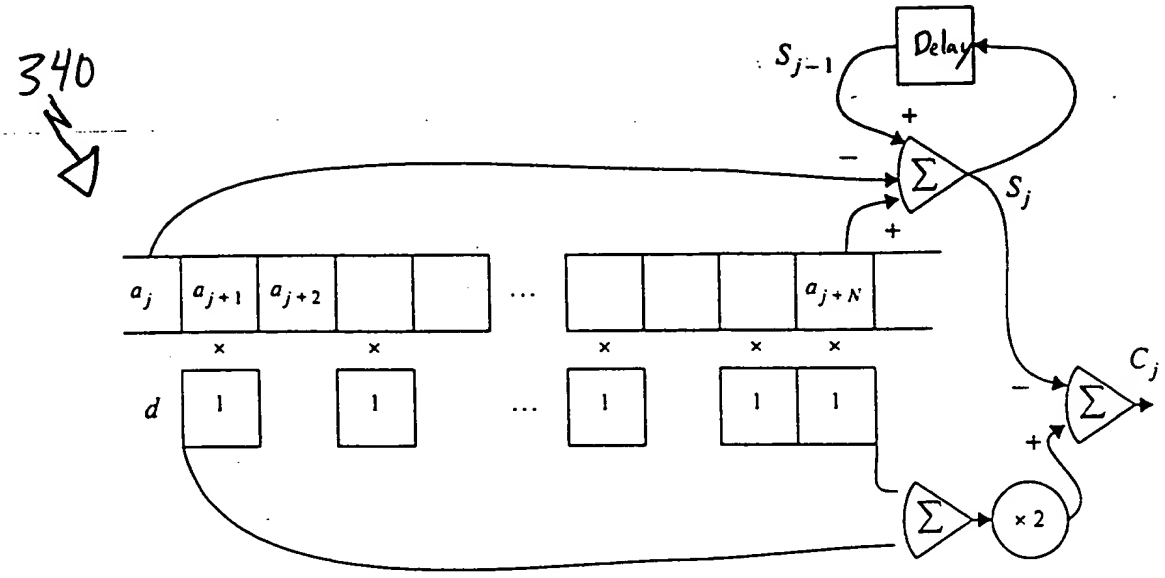
340
Delay
S_{j-1}
S_j
a_j
a_{j+1}
a_{j+2}
a_{j+N}
d
1
C_j
× 2

FIG. 3C

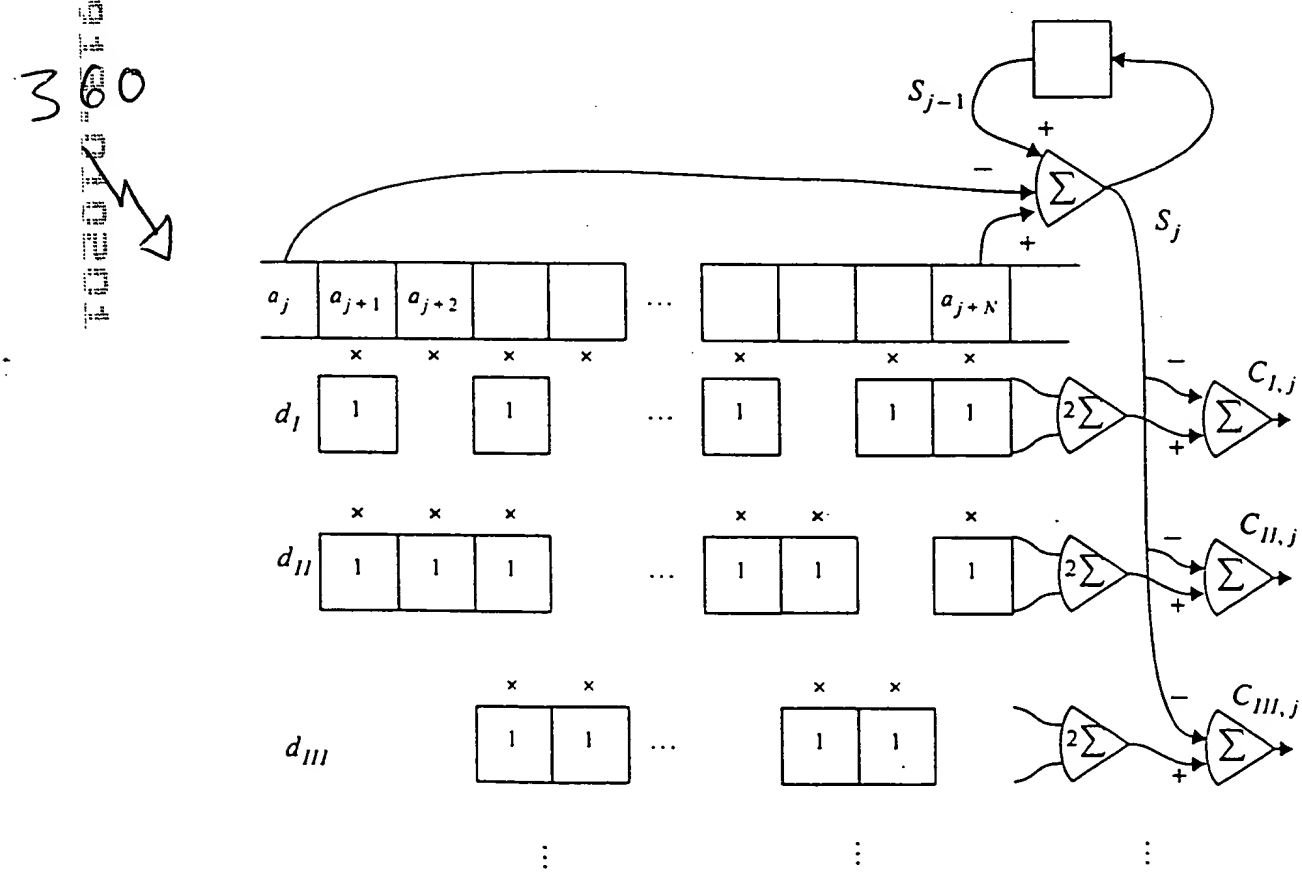
360
S_{j-1}
S_j
a_j
a_{j+1}
a_{j+2}
a_{j+N}
d_I
d_{II}
d_{III}
1
2Σ
$C_{I,j}$
$C_{II,j}$
$C_{III,j}$

FIG. 3D

380

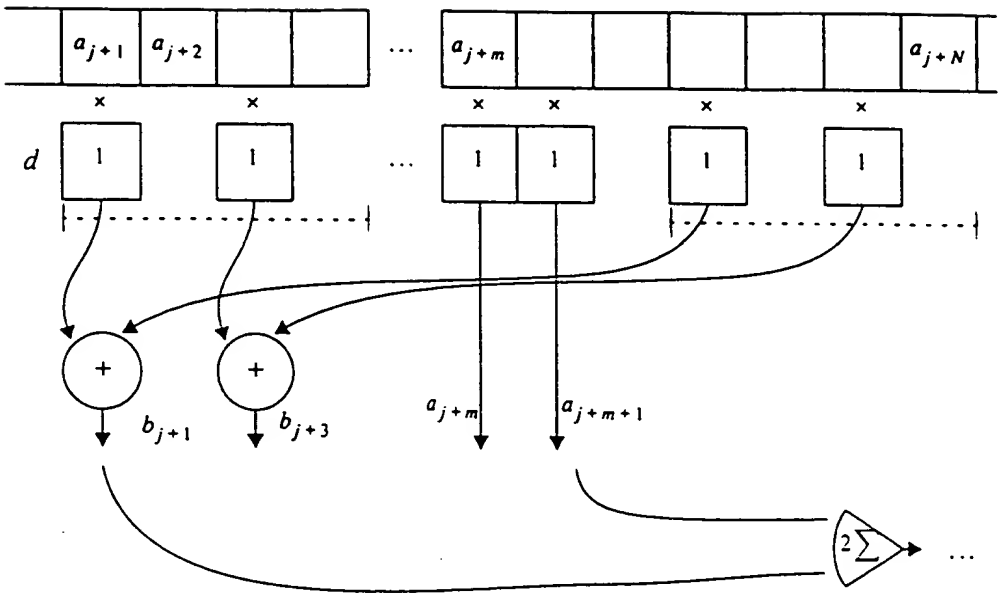

FIG. 3E

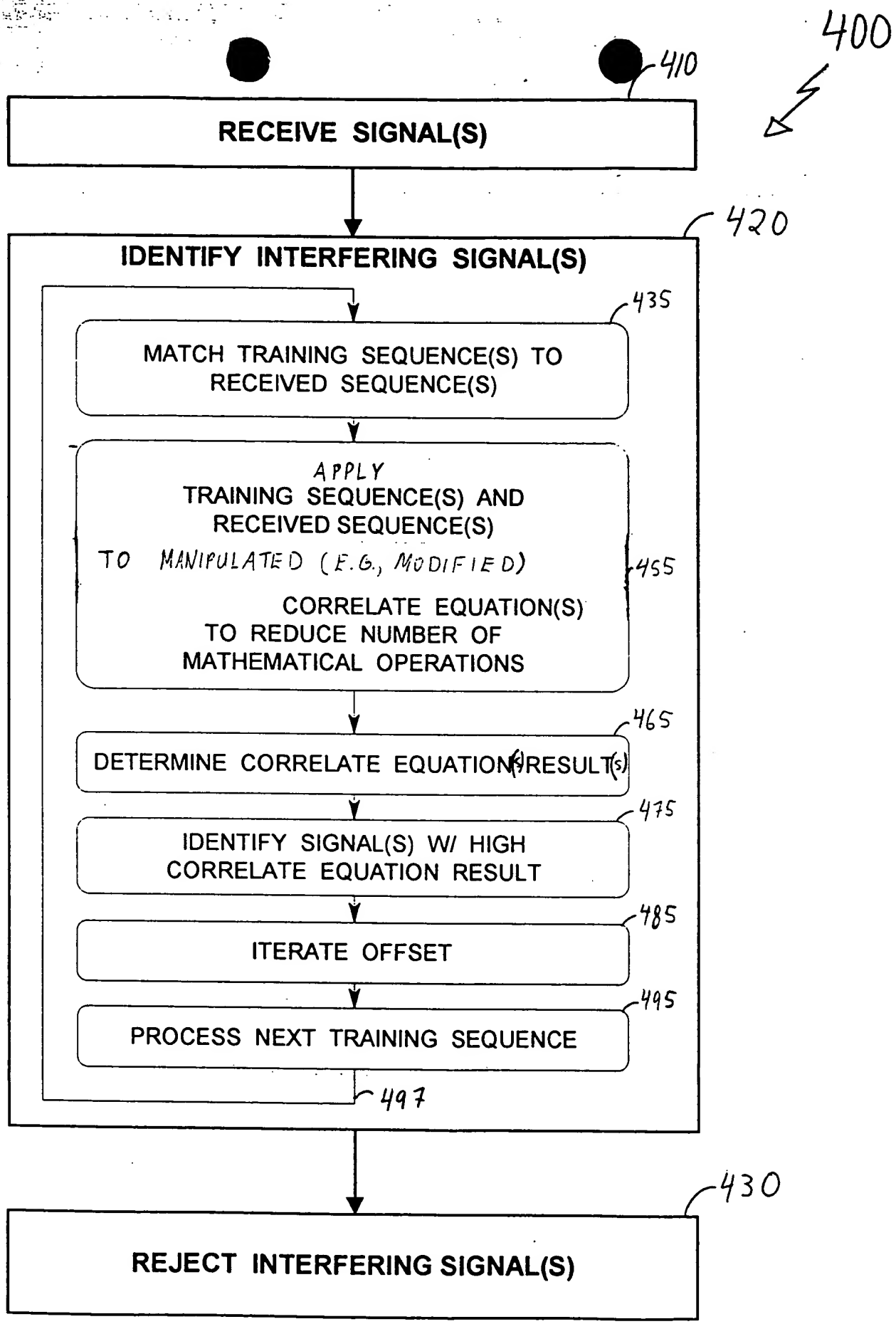
400
410
RECEIVE SIGNAL(S)
420
IDENTIFY INTERFERING SIGNAL(S)
435
MATCH TRAINING SEQUENCE(S) TO RECEIVED SEQUENCE(S)
APPLY
TRAINING SEQUENCE(S) AND RECEIVED SEQUENCE(S)
TO MANIPULATED (E.G., MODIFIED)
455
CORRELATE EQUATION(S) TO REDUCE NUMBER OF MATHEMATICAL OPERATIONS
465
DETERMINE CORRELATE EQUATION(S) RESULT(S)
475
IDENTIFY SIGNAL(S) W/ HIGH CORRELATE EQUATION RESULT
485
ITERATE OFFSET
495
PROCESS NEXT TRAINING SEQUENCE
497
430
REJECT INTERFERING SIGNAL(S)

FIG. 4

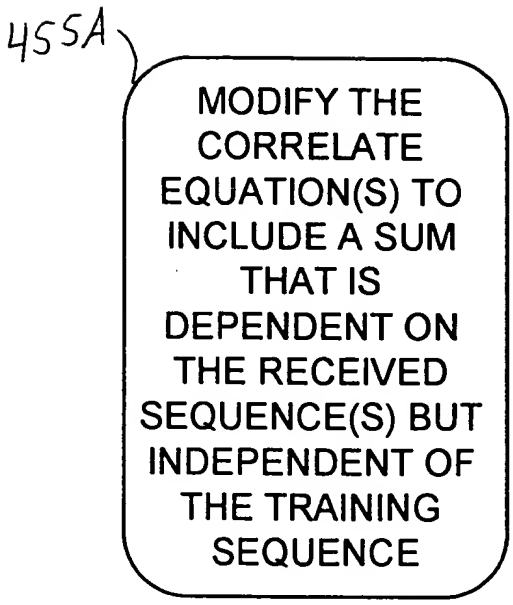

FIG. 4A

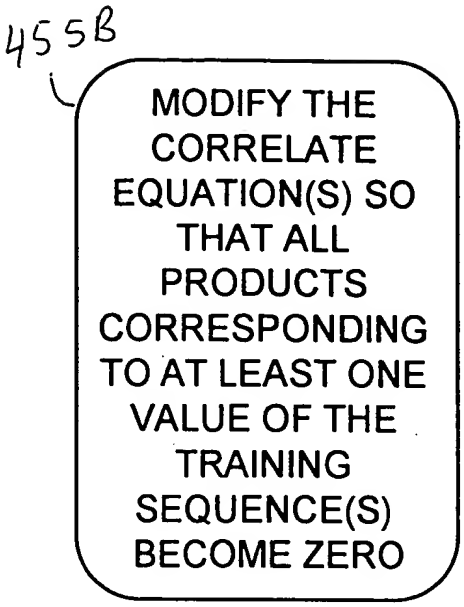

FIG. 4B

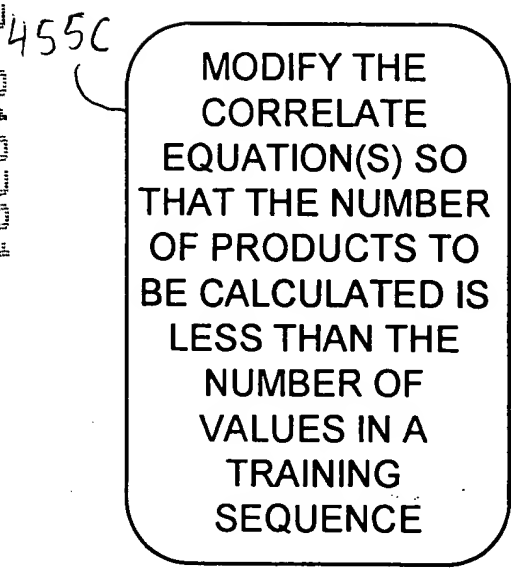

FIG. 4C

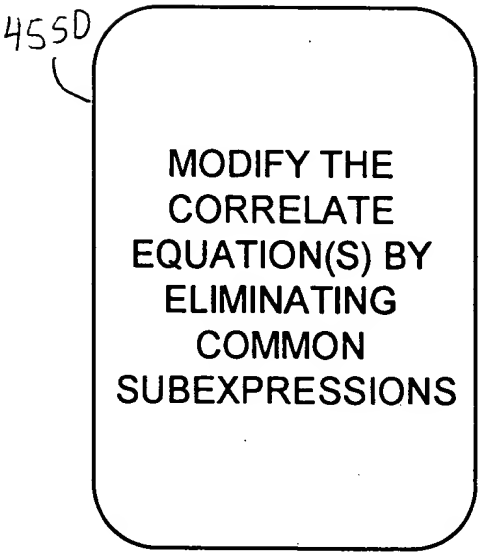

FIG. 4D

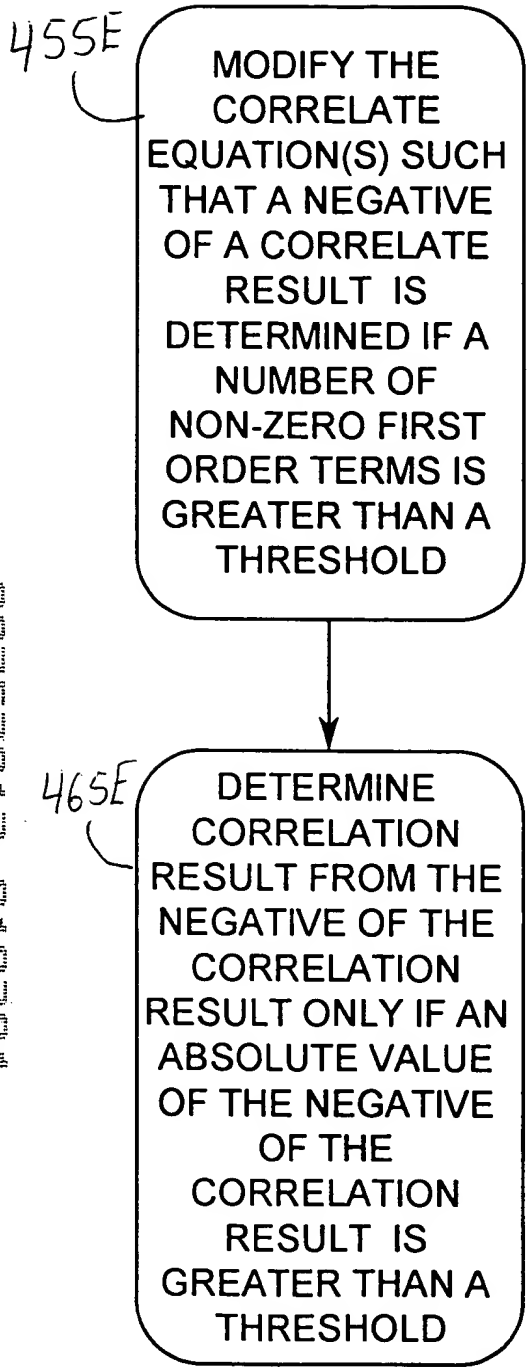
455E
MODIFY THE CORRELATE EQUATION(S) SUCH THAT A NEGATIVE OF A CORRELATE RESULT IS DETERMINED IF A NUMBER OF NON-ZERO FIRST ORDER TERMS IS GREATER THAN A THRESHOLD
465E
DETERMINE CORRELATION RESULT FROM THE NEGATIVE OF THE CORRELATION RESULT ONLY IF AN ABSOLUTE VALUE OF THE NEGATIVE OF THE CORRELATION RESULT IS GREATER THAN A THRESHOLD

FIG. 4E

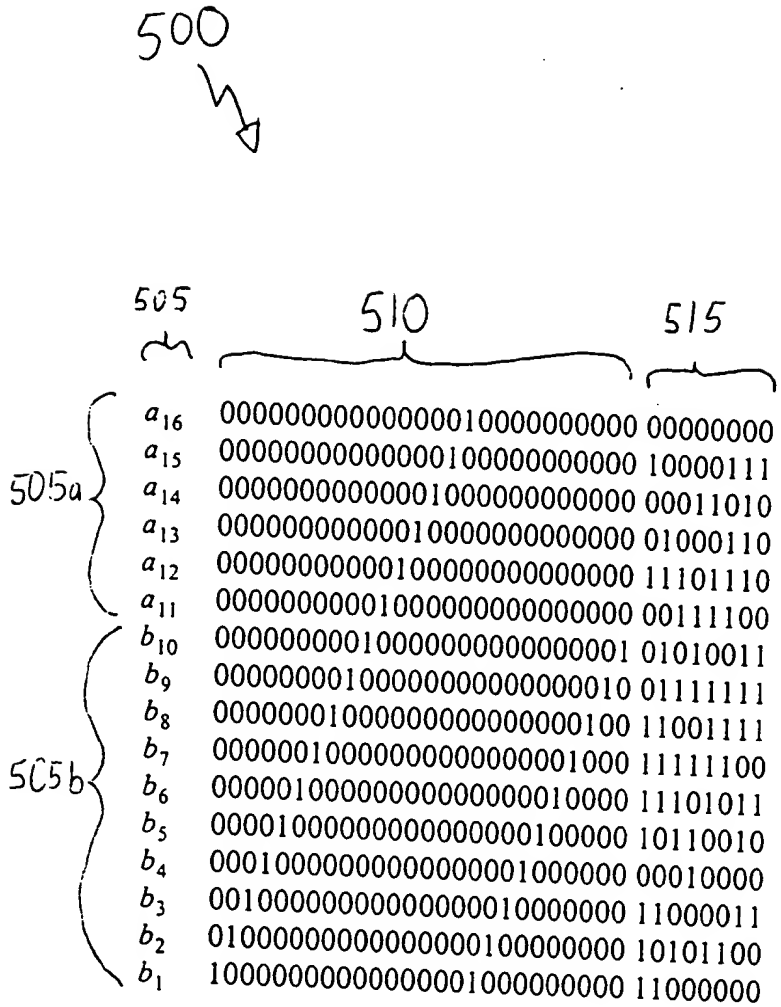
500
505
510
515
505a
505b
a_{16} 0000000000000010000000000 00000000
a_{15} 0000000000000100000000000 10000111
a_{14} 0000000000001000000000000 00011010
a_{13} 0000000000010000000000000 01000110
a_{12} 0000000000100000000000000 11101110
a_{11} 0000000001000000000000000 00111100
b_{10} 0000000010000000000000001 01010011
b_9 0000000100000000000000010 01111111
b_8 0000001000000000000000100 11001111
b_7 0000010000000000000001000 11111100
b_6 0000100000000000000010000 11101011
b_5 0001000000000000000100000 10110010
b_4 0010000000000000001000000 00010000
b_3 0100000000000000010000000 11000011
b_2 1000000000000000100000000 10101100
b_1 0000000000000001000000000 11000000

FIG. 5